

L Number	Hits	Search Text	DB	Time stamp
1	12	(((((thread\$4 multithread\$4 multi-thread\$4) near8 (annotat\$4 pragma\$1 keyword\$1 comment\$4)) ) and (synchroniz\$6 and ((suspend\$3 stop\$4 yield\$4) near6 (thread\$5 process\$2))))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 08:39
3	0	(((((thread\$4 multithread\$4 multi-thread\$4) near8 (annotat\$4 pragma\$1 keyword\$1 comment\$4)) ) and (synchroniz\$6 and ((suspend\$3 stop\$4 yield\$4) near6 (thread\$5 process\$2)))) ) and (((thread\$4 multithread\$4 multi-thread\$4) near6 (program application software cod\$3)) and (synchroniz\$6 same (shar\$3 near6 (object memor\$3 access\$5))) and (synchroniz\$6 near6 count\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 08:43
4	0	(((((thread\$4 multithread\$4 multi-thread\$4) near8 (annotat\$4 pragma\$1 keyword\$1 comment\$4)) ) and (synchroniz\$6 and ((suspend\$3 stop\$4 yield\$4) near6 (thread\$5 process\$2)))) ) and (((thread\$4 multithread\$4 multi-thread\$4) near6 (program application software cod\$3)) and (synchroniz\$6 and (shar\$3 near6 (object memor\$3 access\$5))) and (synchroniz\$6 near6 count\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 08:43
2	33	(((((thread\$4 multithread\$4 multi-thread\$4) near6 (program application software cod\$3)) and (synchroniz\$6 same (shar\$3 near6 (object memor\$3 access\$5))) and (synchroniz\$6 near6 count\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 08:55
5	23	(((((thread\$4 multithread\$4 multi-thread\$4) near6 (program application software cod\$3)) and (synchroniz\$6 same (shar\$3 near6 (object memor\$3 access\$5))) and (synchroniz\$6 near6 count\$3) ) and (increas\$3 monotic\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 08:54
6	0	(((((thread\$4 multithread\$4 multi-thread\$4) near6 (program application software cod\$3)) and (synchroniz\$6 same (shar\$3 near6 (object memor\$3 access\$5))) and (synchroniz\$6 near6 count\$3) ) and (increas\$3 and monotic\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 08:54
7	14	(((((thread\$4 multithread\$4 multi-thread\$4) and (program application software cod\$3)) and (synchroniz\$6 near10 count\$3) and (increas\$3 and monotic\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 09:00
8	0	(((((thread\$4 multithread\$4 multi-thread\$4) and (program application software cod\$3)) and (synchroniz\$6 near10 count\$3) and (synchroniz\$6 near10 (increas\$3 and monotic\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 09:01
9	0	(((((thread\$4 multithread\$4 multi-thread\$4) and (program application software cod\$3)) and (synchroniz\$6 near10 count\$3) and (synchroniz\$6 near10 monotic\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/29 09:02



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### 1 [A type and effect system for atomicity](#)

80%

Cormac Flanagan , Shaz Qadeer

**ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN  
2003 conference on Programming language design and  
implementation June 2003**

Volume 38 Issue 5

Ensuring the correctness of multithreaded programs is difficult, due to the potential for unexpected and nondeterministic interactions between threads. Previous work addressed this problem by devising tools for detecting *race conditions*, a situation where two threads simultaneously access the same data variable, and at least one of the accesses is a write. However, verifying the absence of such simultaneous-access race conditions is neither necessary nor sufficient to ensure the absence o ...

## 2 Applications of model checking at Honeywell Laboratories 80%

4 Darren Cofer , Eric Engstrom , Robert Goldman , David Musliner , Steve Vestal

**Proceedings of the 8th international SPIN workshop on Model checking of software** May 2001

This paper provides a brief overview of five projects in which Honeywell has successfully used or developed model checking methods in the verification and synthesis of safety-critical systems.

## 3 Pointer analysis for structured parallel programs 77%

4 Radu Rugina , Martin C. Rinard

**ACM Transactions on Programming Languages and Systems (TOPLAS)** January 2003

Volume 25 Issue 1

This paper presents a novel interprocedural, flow-sensitive, and context-sensitive pointer analysis algorithm for multithreaded programs that may concurrently update shared pointers. The algorithm is designed to handle programs with structured parallel constructs, including fork-join constructs, parallel loops, and conditionally spawned threads. For each pointer and each program point, the algorithm computes a conservative approximation of the memory locations to which that pointer may point. Th ...

## 4 Core semantics of multithreaded Java 77%

4 Jeremy Manson , William Pugh

**Proceedings of the 2001 joint ACM-ISCOPE conference on Java Grande** June 2001

Java has integrated multithreading to a far greater extent than most programming languages. It is also one of the only languages that specifies and requires safety guarantees for improperly synchronized programs. It turns out that understanding these issues is far more subtle and difficult than was previously thought. The existing specification makes guarantees that prohibit standard and proposed compiler optimizations; it also omits guarantees that are necessary for safe execution of much ex ...

**5 Pointer analysis for multithreaded programs**

77%

**4** Radu Rugina , Martin Rinard**ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 1999 conference on Programming language design and implementation May 1999**

Volume 34 Issue 5

This paper presents a novel interprocedural, flow-sensitive, and context-sensitive pointer analysis algorithm for multithreaded programs that may concurrently update shared pointers. For each pointer and each program point, the algorithm computes a conservative approximation of the memory locations to which that pointer may point. The algorithm correctly handles a full range of constructs in multithreaded programs, including recursive functions, function pointers, structures, arrays, nested stru ...

**6 Implementing robot controllers under real-time POSIX and Ada**

77%

**4** M. González Harbour , J. M. Drake Moyano , M. Aldea Rivas , J. García Fernández**ACM SIGAda Ada Letters , Proceedings of the eighth international workshop on Real-Time Ada October 1997**

Volume XVII Issue 5

In this paper we present our experience in the development of real-time controllers for special robots, designed to perform maintenance operations in nuclear power plants. The evolution of computer hardware and software technology has made the requirements of the embedded robot controllers to also evolve. In addition to the usual concurrent software and real-time constraints, today our robots require advanced features such as network communications, file systems, and graphical user interfaces. T ...

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**Results 1 - 6 of 6      short listing**

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